

Fully PTFE-lined wafer type valve for corrosive and aggressive media. The patented shaft seal design ensures reliability even with high-corrosive applications.

## TECHNICAL DATA

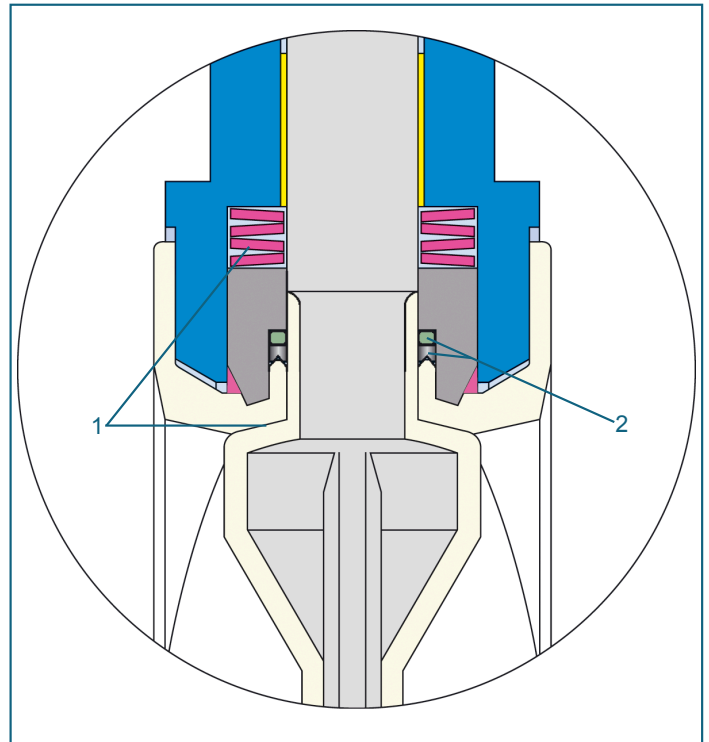
Nominal diameter:	2 inch - 12 inch
Face-to-face:	EN 558 Series 20 ISO 5752 Series 20 API 609 Table 1
Flange accommodation:	EN 1092 PN 10/16 ASME Class 150 AS 4087
Flange Surface Design:	EN 1092 Form A/B ASME RF, FF
Top flange:	EN ISO 5211
Marking:	EN 19
Tightness check:	EN 12266 (Leakage rate A)
Temperature range:	-40°F to +392°F (depending on operation pressure)
Operating pressure:	max. 145 psi (232 psi for special version)
Vacuum:	up to 1 mbar absolute (with silicon elastomer inserts) from +14°F bis +320°F

## FEATURES

- PTFE-lined butterfly valve for chemically toxic and highly corrosive media
- Environmental protection via EBRO-Safety seal
- Splitted body design
- Isolation height according to plant prescription
- Can be installed in any desired position
- Maintenance-free
- Can be disassembled, material-specific recycling possible
- Material conform to FDA EG 1935/2004
- Optional: Special design RWTÜV certified to TA-Air/ VDI 2440

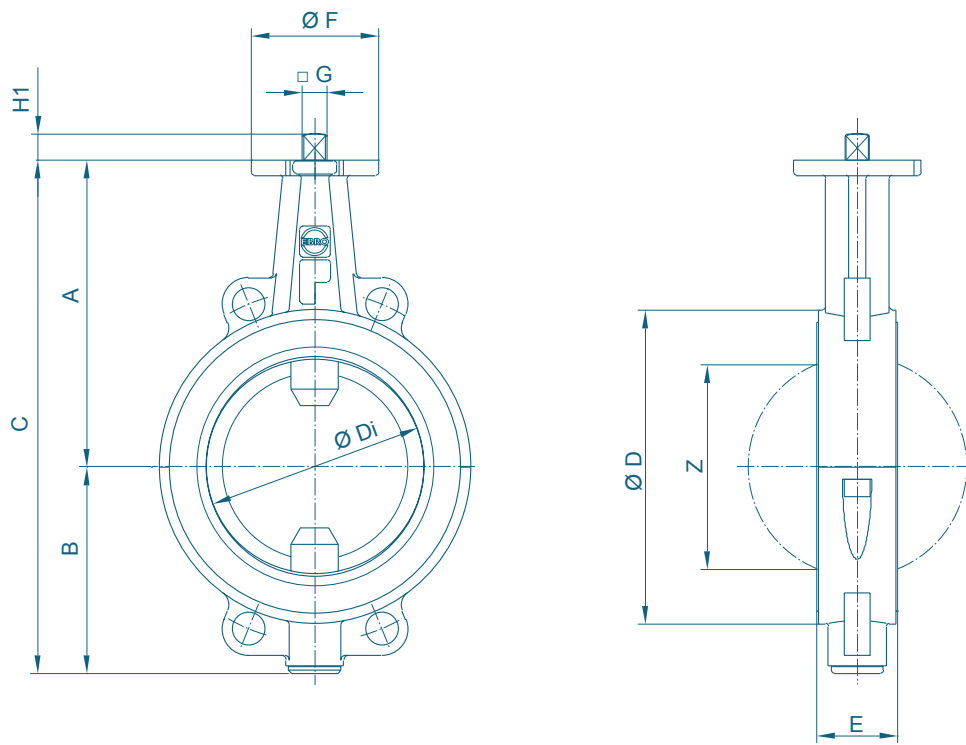
## GENERAL APPLICATIONS

- Chemically highly corrosive and toxic media
- Purification plants
- Pharmaceutical industry
- Adhesives, paper industry, dissolver
- Paint manufacture and processing
- Food industry
- Transport of hazardous materials (EN 14432)
- Chlorine production
- Processing of ore



Safety seal at both shaft ends:

1. Primary sealing by means of a Belleville spring washer, transmitting prestress on the spherical segment area.
2. Secondary sealing of the shaft by means of PTFE-Chevron and o-ring.



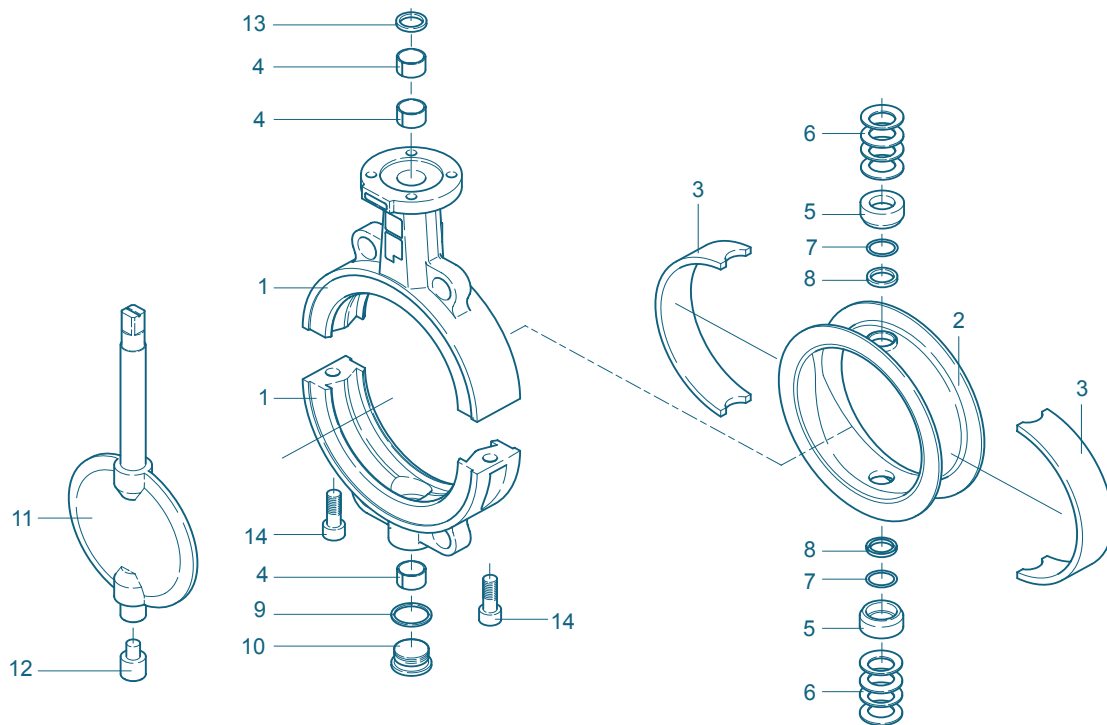
T 211-A with bare shaft end acc. to EN ISO 5211

DN [mm]	Size [in]	Dimensions [in]											Weight [lb]
		A	B	C	D	Di	E	F	Flange	G	H1	Z	
40*/50	1½ */2	5.31	3.15	8.46	4.41	2.39	1.81	2.13	F04	0.43	0.47	1.61	6.20
65	2½	5.91	3.23	9.13	4.72	2.39	1.81	2.13	F04	0.43	0.47	1.61	7.50
80	3	6.18	4.25	10.43	5.43	3.13	1.81	2.56	F05	0.55	0.63	2.60	9.90
100	4	7.09	4.65	11.73	6.30	3.90	2.05	2.56	F05	0.55	0.63	3.35	13.00
125	5	7.68	5.12	12.80	7.48	4.90	2.20	3.54	F07	0.67	0.75	4.41	17.90
150	6	8.27	5.59	13.86	8.46	5.93	2.20	3.54	F07	0.67	0.75	5.55	20.90
200	8	9.45	6.65	16.10	10.59	7.70	2.36	3.54	F07	0.67	0.75	7.36	33.10
250	10	10.83	8.54	19.37	12.76	9.74	2.68	4.92	F10	0.87	0.94	9.41	52.90
300	12	11.81	9.45	21.26	14.72	11.52	3.07	4.92	F10	0.87	0.94	11.14	75.00

\*2 inch drilled 1½ inch

Subject to change without notice

**MATERIAL SPECIFICATION AND PARTS LIST**



PTFE-lined butterfly valve 3 inch - 8 inch

Pt.	Description	Material	Material-No.	ASTM	Pt.	Description	Material	Material-No.	ASTM
<b>1</b>	<b>Body</b>				<b>8**</b>	<b>Chevron seal</b>			
	Nodular Cast Iron	GGG-40.3	EN-JS 1025	A 395		PTFE	Polytetrafluorethylene	PTFE	PTFE
	Stainless Steel	G-X6CrNiMo18-10	1.4408	CF8M	<b>9</b>	<b>Seal</b>			
		X2CrNiMo17-12-2	1.4404	316 L		Stainless Steel	X5CrNi18-10	1.4301	304
<b>2**</b>	<b>Seat</b>				<b>10</b>	<b>Plug screw DIN 908</b>			
	PTFE	Polytetrafluorethylene	PTFE	PTFE *		Stainless Steel	G-X6CrNiMo18-10	1.4408	CF8M
<b>3**</b>	<b>Elastomer insert</b>				<b>11***</b>	<b>Disc/Shaft</b>	one-piece		
	Silicon	Silicon rubber	MVQ	VMQ		St.Steel/ St.Steel	G-X2CoNiMoN26-7-4	1.4469	Duplex
<b>4</b>	<b>DU-bearing</b>					St.Steel/ PTFE	G-X2CoNiMoN26-7-4	1.4469/	Duplex
	PTFE coated						Polytetrafluorethylene	PTFE	PTFE *
<b>5**</b>	<b>Trust collar</b>				<b>12</b>	<b>Lower shaft stub</b>			
	Stainless Steel	X5CrNiMo17-12-2	1.4401	316		Stainless Steel	X39CrMo17-1	1.4122	
<b>6</b>	<b>Bellev. spr. washer</b>				<b>13</b>	<b>Wiper ring</b>			
	Stainless Steel	X12CrNi177	1.4568	631		PTFE	Polytetrafluorethylene	PTFE	PTFE
<b>7**</b>	<b>O-ring</b>				<b>14</b>	<b>Screw</b>			
	FPM	Fluorocarbon caoutchouc	FPM	FKM		Stainless Steel	A4-70	1.4401	B8M
						Above-mentioned materials of the basic version, other materials upon request			

\* optional: electrically conductive

\*\* recommended spare parts

\*\*\* recommended for coated discs

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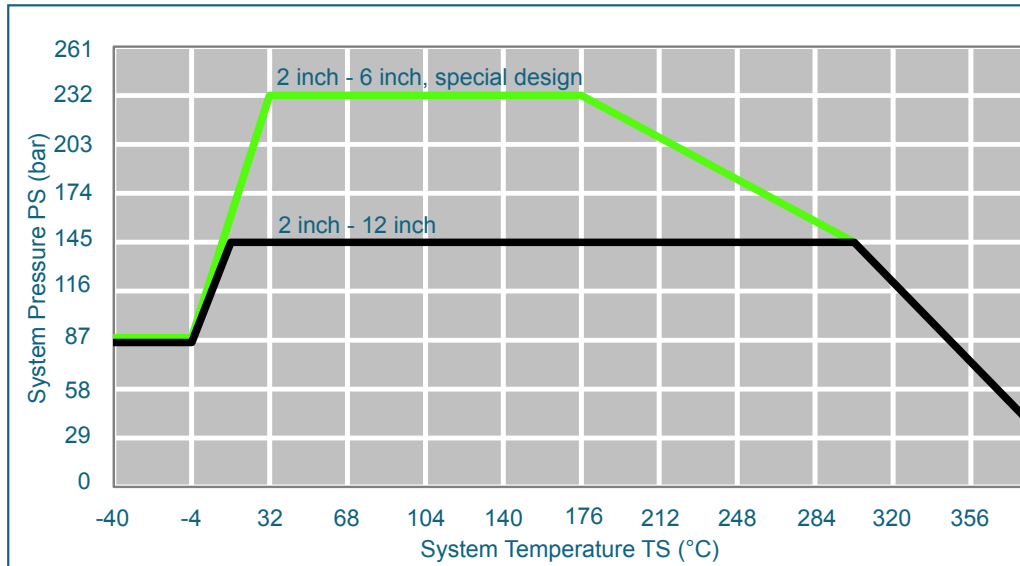
## TORQUE [lb-ins]

- The torque values specified (Md) are based on dry media and are measured with air at a temperature of 68°F
- The values specified are based on the initial breakaway torque (disc disengages from seat, torque then drops)
- Dynamic torque specification available upon request

Regarding the dimensioning of actuators, please contact our engineers.

## PRESSURE/TEMPERATURE DIAGRAM

DN [mm]	40/50	65	80	100	125	150	200	250	300
Size [in]	2	2½	3	4	5	6	8	10	12
Md	354	354	620	841	1151	1505	2036	3098	4200



Pressure-Temperature-Diagram for valves with Silicone elastomer inserts

Service limitation with EPDM elastomer inserts from +14°F up to +248°F

Service limitation with Fluor carbon inserts (FPM) from +14°F up to +356°F

Vacuum service to 1mbar absolute, from +14°F up to +320°F. Valve installation between flanges

## K<sub>V</sub>-VALUES

- The K<sub>V</sub>-value [US Gallon per minute] is the flow of water at a temperature of 41°F to 86°F at Δp of 15 psi
  - The K<sub>V</sub>-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands
  - Permissible velocity of flow  
V<sub>max</sub> 4,5 m/s for liquids,  
V<sub>max</sub> 70 m/s for gases
  - The throttle function is linear at an angle 30° to 70°
  - Avoid cavitation
- For further values, please contact our engineers.

DN [mm]	Size [in]	Opening angle α°							
		20°	30°	40°	50°	60°	70°	80°	90°
<b>1) K<sub>V</sub>-values metal disc</b>									
40/50	2	18	9	48	123	233	370	533	794
65	2½	22	35	110	247	436	674	951	1328
80	3	57	53	132	304	577	951	1444	2021
100	4	57	110	269	533	911	1405	2021	2834
125	5	163	291	537	951	1554	2391	3491	4905
150	6	220	414	753	1334	2241	3566	5398	7470
200	8	603	656	1515	3064	5187	7767	10681	14640
250	10	784	1281	2474	4495	7480	11562	16872	23340
300	12	1739	1664	3610	7212	12112	17959	24383	33420
<b>2) K<sub>V</sub>-values PTFE-disc</b>									
40/50	2	9	4	18	53	97	154	220	300
65	2½	13	40	114	211	326	431	515	688
80	3	18	62	167	313	476	630	753	1008
100	4	26	70	211	418	665	920	1154	1548
125	5	53	176	484	955	1567	2312	3161	4248
150	6	79	264	709	1396	2316	3465	4826	6480
200	8	550	775	1739	3329	5433	7956	10783	14400
250	10	608	1466	2835	4856	7679	11443	16299	22080
300	12	894	2034	3839	6512	10254	15282	21794	29280

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